1270

Bradford Wheeler — Assistant Engineer Sacramento
Drury Butler — Transit Man Sacramento

Copied entirely
D Butler

Contents.

"A" Line Original X Sect. - p.41-44.

"A" Line Final X Sect. p.43-50.

1272

Run from BM on to dump

Jan 15, 07

2.52	12.967		10.447	
		1.775	11.192	
15.110		2.302		
TP			1.590	24.612	on TP at Rod 16+13
2.00	26.062			

1273

Sept 29 1936

Cross sections on Road crossing at E 1392.02 12' Road Bed Slope 1½:1

Station	Grade Elev		Left	℄	Right
		H.H.			
2+00					
1+66				0.0	
1+50	8.8	7.2	1.8	1.8	1.8
1+00	13.8	7.4	6.7	6.8	6.3
0+50	18.8	7.7	11.5	11.2	11.2
0+31.5	20.7	7.9	12.5	12.8	12.8
0+00	22.9	21.7	1.7	1.7	1.7
0+16.3	21.2	21.2		0.0	
0+00	21.2	21.7		0.0	

Copied

Form 4E Used In Preliminary Estimate No. 30

1274

Sept 29 1906

Cross section notes on Road crossing at E 1395+24 16' Road bed slope 1½ to 1
Right ℄ Left

Station	Grade	Elev
2+00	4.0	10.1
1+50	9.0	10.4
1+00	10.4	10.4
0+50	14.0	11.0
0	19.2	13.7
0+31.2	20.2	15.2
0+15.2	22.5	17.0
0+08	23.1	
0+06.3	21.4	
0+00	21.4	

Page 5 ~~To~~ Used In Final Estimate No. 908

Copied

1275

Pages 6 To Used In
Final Estimate No. 20

Copied

Road Crossing at E 1364+50.

Sept 29 1906

6

	Elev	Grade	Crossing 16' wide Grade 1 in 16' Left	C	Right
160	8.2	8.2			
150	8.5	9.2			
1+00	8.2	14.2			
1+50	9.9	19.2			
1+36	11.1	21.3			
0+09		23.3			
0+06⅔		21.8			
0+00		21.6			

1276

Oct 4th 1906

Road crossing at 642+31 - 29° crossing. Grade 1 in 10. Xsection Notes

	Elev	Grade	Left	℄	Right
17					
17+78	9.5	9.5			
17+50	9.7	12.3	2.5 / 15.7 — 2.5 / 12 — 2.6	2.3 / 12	2.2 / 15.3
00	9.7	17.3	7.9 / 23.9 — 7.6 / 12 — 7.6	7.4 / 12	7.6 / 23.4
0	9.9	22.3	12.2 / 30.3 — 12.4 / 12 — 12.5	12.0 / 12	12.0 / 30.0
16	9.6	24.1	14.5 / 33.8 — 14.5 / 12 — 14.5	14.3 / 12	14.6 / 33.8
0+00R	24.7	26.4	1.7 / 14.5 — 1.7 / 12 — 1.7	1.7 / 12	1.7 / 14.5
0+46 ±	24.7	24.5	0° / 12	0° / 12	0° / 12
0+00	24.7	24.7	0°		

Continued

1277

X Section Notes on Sept work on Dredger No 5. Oct 4 1906

E'	Elev	Grade	Left	C	Right
			8.5 / 23.2	7.9 – 7.2 – 7.8 / 9	10.9 / 25.4
624	18.3	24.929	10.9 / 25.4	7.6 – 6.6 – 6.8 / 9	9.5 / 23.3
650	18.3	24.935	13.3 / 24.4	7.4 – 6.6 – 6.7 / 9	13.0 / 26.5
	19.1	24.941	13.2 / 23.8	7.0 – 5.8 – 7.1 / 9	13.2 / 23.8
650	19.6	24.947	9.5 / 23.3	6.8 – 5.3 – 5.5 / 9	9.7 / 23.5
	18.4	24.953	10.7 / 25	6.4 – 6.5 – 6.7 / 9	10.6 / 24.9
650	19.3	24.959	9.5 / 23.4	5.3 / 9 – 5.6 – 7.3 / 9	13.0 / 31.6
	21.0	24.965	9.3 / 23.0	4.5 – 3.9 – 9 – 7.1 / 14.5	10.7 / 25.3
650	21.0	24.971	10.5 / 24.8	5.1 / 9 – 3.9 – 6.6 / 9	12.0 / 27.0
620	19.9	24.976	9.2 / 22.8	6.5 / 9 – 5.0 – 7.0 / 9	12.3 / 27.5
650	20.7	24.982	9.7 / 22.6	5.0 / 9 – 4 3 – 6.9 / 9	9.7 / 23.6
619	21.8	24.988	9.5 / 23.2	5.9 / 9 – 3 2 – 5.6 / 9	10.3 / 24.4

Corrected

1278

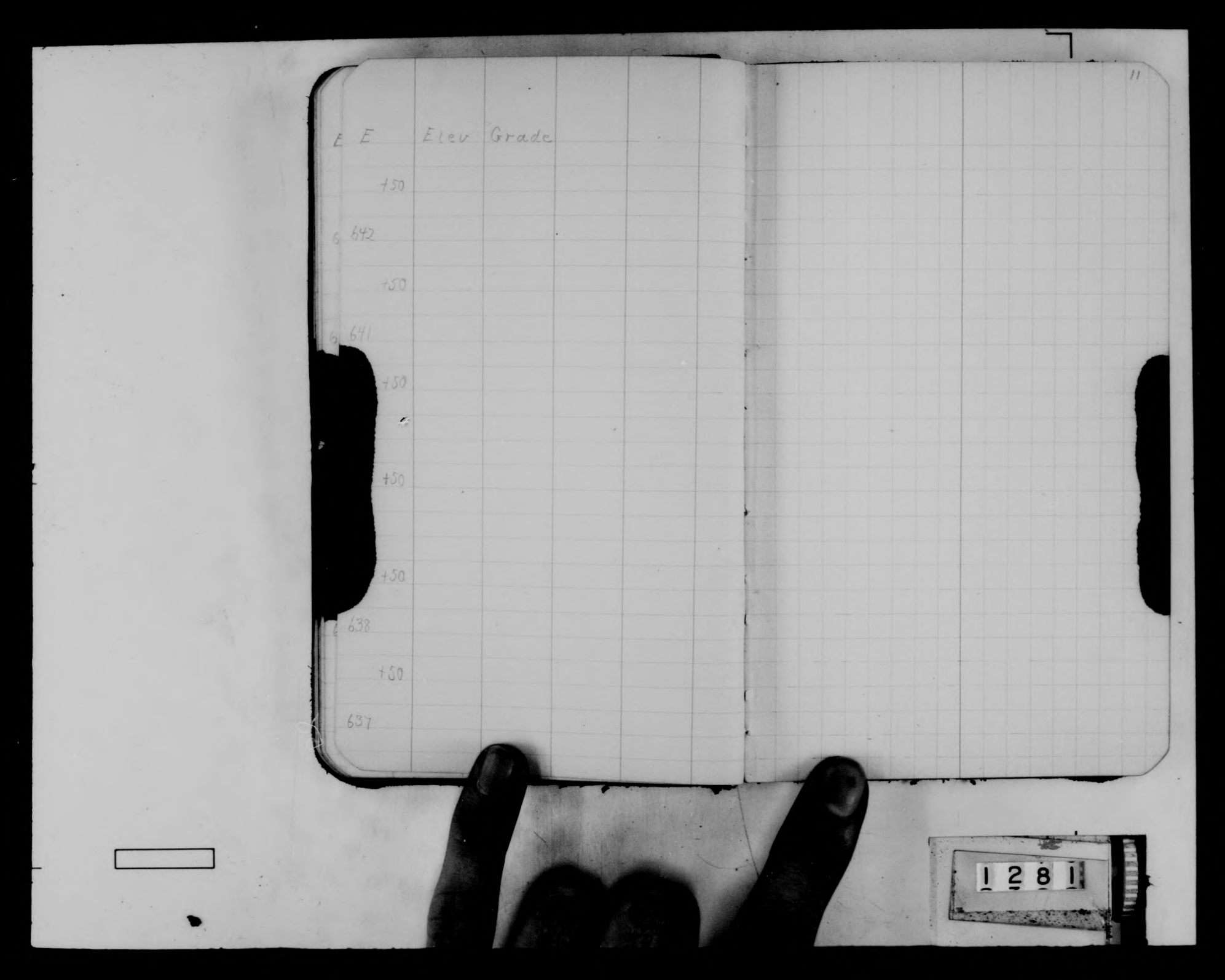
E	Elev	Grade	Left	C	Right
750		24.852			
650		24.857			
750		24.863			
629	20.7	24.869	9.4 / 23.1 — 6.0 — 9	4.2 — 6.3 — 9	13.6 / 29.7
50	18.7	24.875	missing — 6.9 — 9	6.9 — 7.2 — 9	10.3 / 24.3
	18.0	24.881	11.2 / 25.8 — 8.1 — 9	6.8 — 7.2 — 9	11.3 / 26.0
50	18.1	24.887	7.7 / 24.5 — 6.6 — 9	6.7 — 8.7 — 9	9.9 / 23.9
	17.2	24.893	11.5 / 26.3 — 9.3 — 9	7.7 — 8.9 — 9	14.8 / 31.2
50	17.3	24.899	9.3 / 23.0 — 5.3 — 9	7.6 — 9.3 — 9	13.3 / 29.0
626	16.7	24.905	9.3 / 23.0 — 7.8 — 9	8.2 — 9.1 — 9	11.9 / 26.9
750	17.0	24.911	10.8 / 25.2 — 8.1 — 9	7.9 — 8.6 — 9	10.1 / 27.2
625	18.6	24.917	12.1 / 27.2 — 6.3 — 9	6.3 — 7.5 — 9	11.2 / 25.8

Corrected

1279

E	Elev	Grade
	+30	
	634	
	+50	
	635	
	0	
	0	
	50	
	632	
	+50	
	631	

1280


11
E E Elev Grade
+50
642
+50
641
+50
+50
+50
638
+50
637
1281

E	E	Elev	Grade
	+50		
6	648		
	+50		
6	647		
	+50		
	+50		
	+50		
6	644		
	+50		
	643		

1282

Roadcrossing at 13 55 rt 21 Kings.

		Elev	Grade	
6				
63	17 611	7.5	7.5	
	450	7.5	9.2	
	400	9	14.2	
	450	13.0	19.2	
	4293	15.2	21.3	
	472	15.8	22.4	
			22.4	
6	0+98	21.6	23.3	
	0+63	21.6	21.6	
	0+00	21.6	21.6	

16' Road Grade 1 in 10.

Left ℄

				0.0		
	1.5 10.3	1.5 8	1.5	1.5 8	1.5 10.2	
	5.5 16.2	5.5 8	5.2	5.6 8	5.9	
10.3 23.4	9.6 11.1	- 6.8 8	- 6.2	6.9 8	4.8 15.2	
28 26.5	10.1 16.1	- 6.2 8	- 6.7	- 6.2 8	- 5.7 16.6	
	6.6 17.9	6.6 8	6.6	6.6 8	6.6 17.9	
1.7 10.6	1.7 8		1.7	1.7 8	1.7 10.5	
			0.0			
			0.0			

1283

Road parallel to Line on Johnston Estate
Road to Johnstons Pump House

Sta	Elev	Grade
50	4.5	10.0
3+00	4.0	10.0
1+50	4.0	10.0
00	5.2	10.0
0	3.9	10.0
0 Pass	3.4	10.0
50	3.6	10.0
X		
8.	4.3	10.3
15	6.9	11.6
10 Pass		
0+04	12.7	12.7
0+00 = 58' R 679+57.9	13.3	13.3
B.M. 150 R from 679+60 Elev 12.393		

Co Feed

Page 14 To 17 Used In Final Estimate No 135

14

cr feed 58' R from center line 16' Road.

Oct 8 1906.

5-28-12
7.M.Y.

Left			Center	Right
4.6 / 14.9	4.9 / 8	5.5	6.4 / 8	7.8 / 14.1 / 10.6 / 33.0
8 / 12	5.0 / 8	6.0	6.6 / 8	7.3 / 14.0 / 10.2 / 32.2
8	5.2 / 8	6.0	6.2 / 8	8.5 / 20.7
5 / 14	4.5 / 8	4.8	5.5 / 8	5.6 / 16.4
6.2 / 16.1	5.7 / 8	6.1	6.8 / 8	6.4 / 17.6
5.7 / 15.5	6.2 / 8	6.6	6.6 / 8 / 5.0 / 13.6	9.5 / 37.6 / 9.1 / 21.7
6.6 / 6.0	6.1 / 8	6.4	6.4 / 8	9.2 / 21.8
4.2 / 14.3	4.9 / 8	6.0	7.6 / 8	8.8 / 22.2
1.8 / 10.3	2.0 / 8	4.7	4.0 / 8	5.6 / 16.7
8	0 / 8	0	0 / 8	
8	0 / 8	0	00 / 8	

1284

Sta
Elev
Grade
Left
℄
Right
50
7.7
10.0
9+00
7.2
10.0
50
6.2
10.0
8+00
5.0
10.0
5.9
6.4
6.4
6.0
5.3
10.0
5+00
4.8
10.0
5.0
5.0
10.0
4+00
4.8
10.0
Offset
5-28-12
15
1285

Sta	Elev	Grade
14+00	10.8	10.0
+70	10.1	10.0
+50	9.4	10.0
	9.2	10.0
	8.4	10.0
	8.6	10.0
	8.4	10.0
	8.7	10.0
+50	8.3	10.0
~~47.8~~	8.8	10.0
10+00	8.1	10.0

Left ℄ Right

0.0

0.0

$-\frac{0.8}{9.2} - \frac{0.9}{8} - 0.6 - \frac{0.2}{8} - \frac{0.7}{9.2}$

$-\frac{1.0}{9.5} - \frac{0.9}{8} - 0.8 - \frac{1.8}{8} - \frac{08}{9.2}$

$-\frac{1.5}{10.0} - \frac{1.4}{8} - 1.2 - \frac{1.1}{8.0} - \frac{1.0}{9.5}$

$-\frac{1.6}{10.4} - \frac{1.5}{8} - 1.4 - \frac{1.4}{8} - \frac{1.4}{10.1}$

$-\frac{1.2}{9.8} - \frac{1.2}{8} - 1.2 - \frac{1.3}{8} - \frac{1.3}{10.0}$

$\frac{1.0}{9.5} - \frac{1.0}{8} - 1.1 - \frac{1.0}{8} - \frac{1.1}{9.7}$

$-\frac{0.9}{9.4} - \frac{0.9}{8} - \frac{1.1}{8} - \frac{1.5}{8} - \frac{1.7}{10.6}$

$-\frac{1.2}{9.8} - \frac{1.4}{8} - 1.9 - \frac{2.2}{8} - \frac{2.3}{11.5}$

S. 2000

Copied

FM 11 5-28-12

1286

Road Crossing at E 13 49+345 Kings. 16' Road

		9.3	9.3			0.0 E	0.0	0.0 E		
		9.5	18.3		- 4.8 15.2	- 4.8 E	- 4.8	- 4.8 E	- 4.8 15.2	
		9.5	19.3		- 9.8 22.7	- 9.8 E	- 9.8	- 9.8 E	- 9.8 22.7	
		9.5	21.8		- 12.1 26.2	- 12.1 E	- 12.1	- 12.1 E	- 12.1 26.2	
0+09		21.7	23.4		- 1.7 10.6	- 1.7 E	- 1.7	- 1.7 E	- 1.7 10.6	
0+013		21.7	21.7			0.0 E	- 0.0	- 0.0 E		
0+00		21.7	21.7				0.0			

Coffered

1287

XSections on Levee at kings place

	Left			C		Right	
1346	9.2 27.8	9.8 16	18.6	21.7 6	21.1 16.5	13.6 44.5	8.0 69.5
1345	9.6 27.2	9.8 29.5	21.1	21.4 12.5	20.4 30	12.3 54	8.0 69.4
14	9.7 27.6		21.6	21.7 11	20.1 29	13.1 49.5	10.6 57.5
50	10.2 28.3		21.3	21.2 14	20.1 36	14.0 42.5	11.8 57.2
	12.2 26.7		18.7	19.1 18	15.7 40	12.1 48.6	
450	13.7 14.0		15.8	17.9 6	16.6 27	14.9 47.7	11.0 67.7
1342	15.3 28.6	15.6 5.0	17.0	17.9 5	16.5 27	13.0 54	8.8 74.4
1341450	9.1 27.9	9.1 24.6	18.9	18.4 12.5	17.9 23.4	14.3 40.5	10.1 71.0

1288

	Left					Right				
1353	14.3	14.3	14.5	15.0	16.2	17.2	15.9	13.1	9.9	
	20	9		9	19.1	21	41.9	61	77.5	
1350	8.3	8.3	9.1	13.7	17.3	20.2	19.7	14.5	13.2	
	29.0	9		9	15.5	20	41	56	71	
1352	8.7	9.0	10.2	14.9	16.0	21.6	20.9	13.5	8.7	
	28.4	9		9	14.4	20	40.7	56	77.9	
	9	9.2	11.2	16.1	18.0	21.5	20.9	12.9	9.9	
	27.9	9		9	14.7	19.0	36.3	56.4	66.3	
	9.1	9.6	11.1	16.3	18.9	21.0	20.2	13.3	10.6	
	27.8	9		9	13.0	17.6	38	57	84	
	8.8	9.7	14.1	18.9	21.4	20.1	12.9	10.2		
	24.4	9		9	13.6	35.5	58	77.1		
1348	9.0	9.7	10.3	14.8	24.1	20.5	13.6	11.1		
	28.1	12	9		12.9	34.4	54.6	79.2		
1347	9.1	9.9	17.9		21.3	21.2	13.5	10.0		
	27.9	15			8	21	47.9	70.0		

Coffee'd

Left of C Right

14.9	15.2	16.6	18.9	19.5	20.6	20.9	14.0	10.1
19.5	9		9	12.2	25	42	66	88
		10.5		21.4	20.9	13.3	8.5	
				25	44	63.3	89.6	
9.3	8.8	10.4	14.3	16.3	21.4	21.7	13.2	7.3
27.5	9		9	14.0	30	47.8	66.5	92.3
9.4	9.0	9.8	14.9	18.3	20.7	20.9	13.6	9.4
27.3	9		9	14.0	30	44	61	63.5
9.3	8.8	9.9	14.3	17.5	19.9	19.1	14.6	10.8
27.5	9		9	15.7	30	44	56	75.3
8.6	8.8	8.8	13.9	16.0	17.5	16.6	13.8	12.3
28.5	9		9	12.3	25	39.2	57	78

1290

Pages 2/ ~~To~~ Used In
Final Estimate No 123.

Road crossing at 65+90 2 16° Rank

	Elev	Grade
1+65	8.9	8.9
1+50	8.9	10.4
1+00	8.3	15.4
0+50	8.9	20.4
0+32.1	9.2	23.9
0+00	24.5	26.2
0+063	24.5	24.5
0+00	24.5	24.5

Copied

Points of Crossing

Left ℄ Right

Oct 12th 1906.

21

	0.0			
1.6 / 10±	1.6 / 9	-1.5	1.5 / 9	1.6 / 10±
-7.0 / 18.5	-7.3 / 9	-7.1	-7.1 / 9	-7.0 / 18.5
10± / 20.2	-11.0 / 9	-11.5	11.9 / 9	12.1 / 20.2
-14.8 / 29.2	-14.6 / 9	-14.7	-15.1 / 9	-14.9 / 30.5
13 / 10±	14.7 / 8	-14.7	14.7 / 8	14.9 / 10.2
	0.0			
	0.0			

1291

Road crossing at E 696+75

Belle Johnson Place

Left — Right

22

Nov 15 1905

Pages 22 ~~e~~ Used In Final Estimate No 136

AM. 1 5-22-12

1+65	10.3	10.3							
1+50	10.3	11.8							
1+00	10.7	16.8							
0+50	9.5	21.8							
0+31=	9.4	23.7							
0+09	24.2	25.9							
0+06.3	24.2	24.2							
0+00	24.2	24.2							
=									
E 696+75									

1292

Nov 17 1911

Pipe lines on Johnston Estate

Pipe line at 684+072 for pump house.

Reference Points.

Pipe Line — 129' — 150' — Iron Pipe — Stone on right on account of Lake

1+50L
1+50R
1+35L
1+35R
1+25L
1+25R
1+16L Tabor Lower
1+16R
1+09L
1+09R
1+00L
1+00R
0+85L △ = E 684+072 on track
0+85R
0+75L
0+75R
0+50L
0+50R
0+35L
0+25R
0+00 L
0+00 R

Cont'd

1293

Nov 16

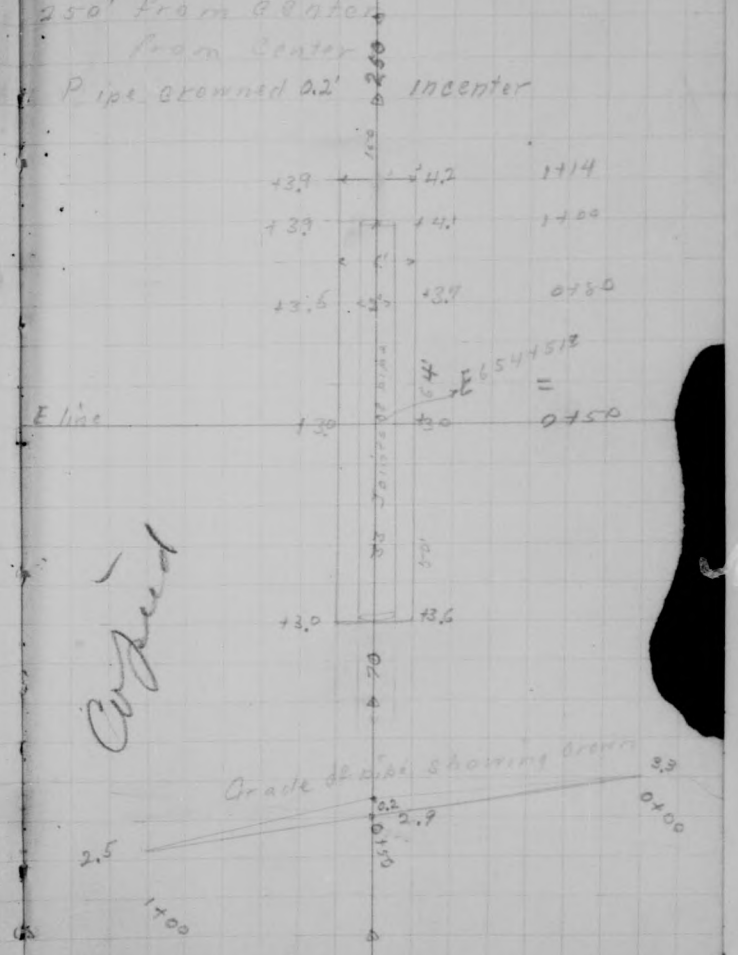
Pipe line on Pringles place

Hubs set on Left at 150' and
Hubs set on Right at 70'

Sta		Grade Elev	Cut
Width of Trench 6'			
1+14 R		6.6	11.2
1+14 L		6.3	3.9
1+00 R		6.6	4.1
1+00 L		6.4	3.9
0+50 R		6.4	3.7
0+50 L		6.2	3.5
0+50 R		6.1	3.0
0+50 L		6.1	3.0
0+00 R	6.9	6.9	3.6
0+00 L		6.3	3.0

E 6544112

E 6544512 = Cr Pipe
250' from Center
Pipe crowned 0.2' Incenter



1294

Pipe line on Johnson Place E 660 36" Pipe

Hubs set 150' on Left and 70' on Right of center of pipe

width of trench 4'

Sta	Grade Elev	Grade Cut	
E 660			
Water Meter	1.3		
0+14 L	5.1	1.3	3.8
0+14 R	4.9	1.3	3.6
0+00 L	5.2	1.4	3.8
0+00 R	5.0	1.4	3.6
0+50 L	5.5	2.0	3.5
0+50 R	4.9	2.0	2.9
0+00 L	7.5	2.2	5.3
0+00 R	7.0	2.2	4.8

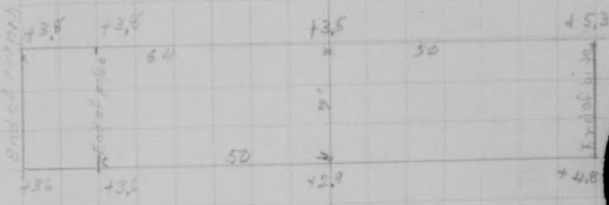
Left ℄ Right Nov 16 25

36" Pipe

Trench 4' Wide Pipe Crowned

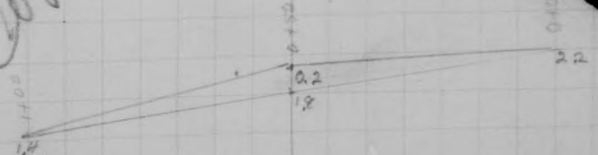
20' incenter Reference points

Trench cuts Sides vertical



Carpenter

Grade of pipe showing crown



1295

Road crossing on Johnson

E 6794 36

1443		
	12.7	12.7
1445	14.4	12.7
1400	16.9	
0450	21.2	
0425	24 +	
0409	26.2	
0407	24.3	
0400	24.3	

Page [illegible] Used In
Final Estimate No 13A

Corrected

Calculated
5-28-12
ZMY

1296

Pipe on Johnson place Sta 702+66.8 36" Pipe

1297

Pipe line on Johnson Place E 732 + 76 95

1298

Jan 15 07

X sections on 2nd 5 clean up R L

Grade

750		24 732					
640		24 736					
750		24 744					
639		24 750					
750		24 756					
638		24 762					
750		24 768					
637		24 774					

Wilmington to Stanwood

Blue Creek #3

1299

Jan 5th 11

X sections on No 5 dump

		L	C	R
	24.673			
	24.650			
	24.686			
	24.692			
	24.675			
	24.704			
	24.710			
	24.716			
	24.721			
	24.726			

Copied

1300

Jan 18, 1911 on 7 line to pro... city corners of Johnston Gammon & Frey near Franklin road

BS 741+76

Δ 23°16'

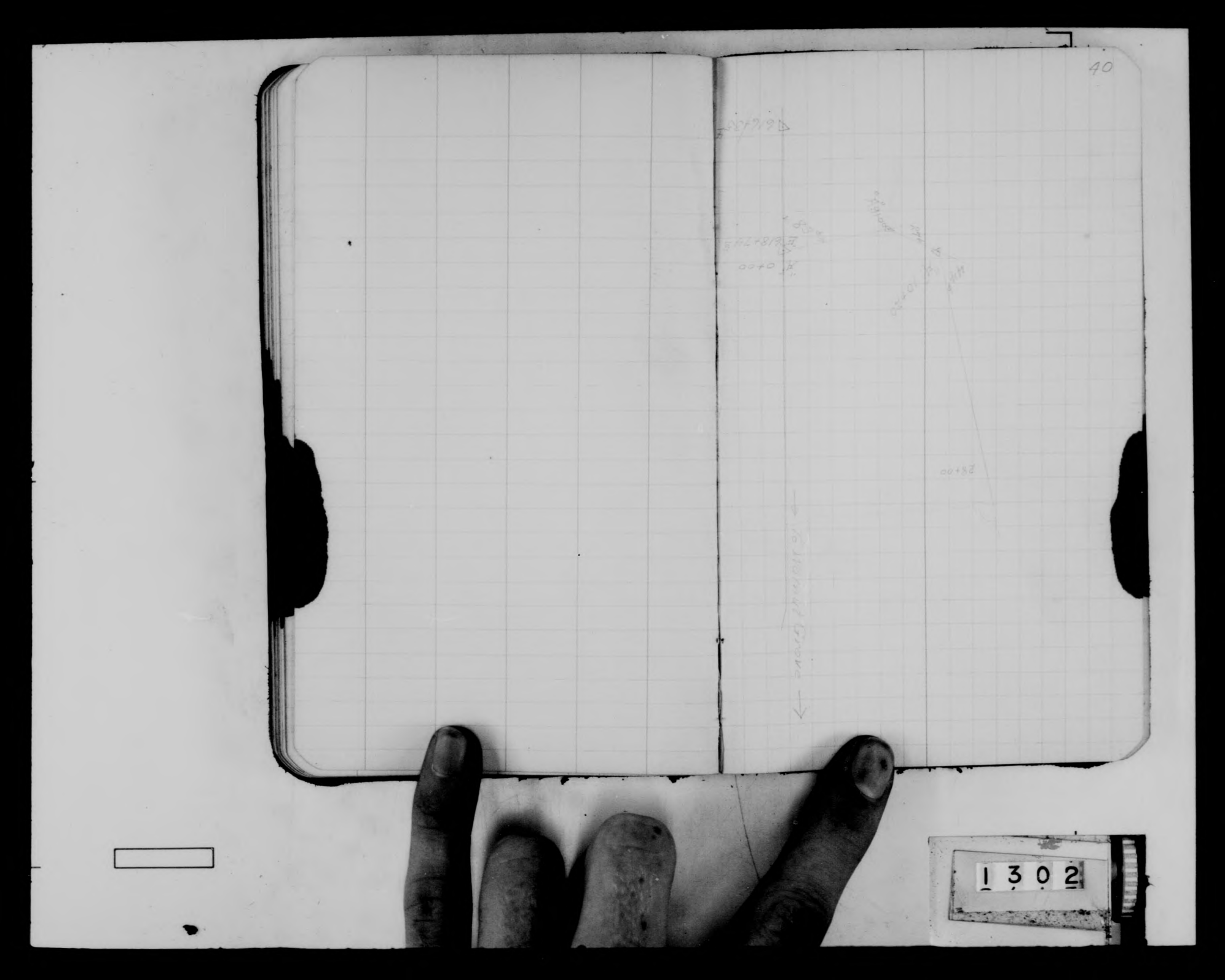
Frey

Caldwell

Δ 741+76

Copied

1301


40
1302

E 616+35 ℄ A

See pages 44 and 48 of this book

F 618+79 ℄ 83°

"A" 1+00

2

3

4

5

6

7

8

9 Δ 27° Rt

10

+20 Δ 44° Rt

11

12

Plotted

Original
XSects Taken on
℄ of "A" Line

* S.M. April 28th 1910
Elev. 13.8

30 40 50 60 70 80 90 100 110
+4.2 +0.6 -2.4 -3.0 -2.8 -2.0 -0.0 +2.4 +6.8

35 40 45 50 60 70 80 90 100 110
+10.2 +5.2 -1.8 -3.8 -3.6 -3.4 -0.8 +4.7 +9.6

35 40 45 50 60 70 80 90 100 110
+14.2 +10.2 +3.0 -1.2 -4.3 -4.4 -3.8 -1.3 +2.3

30 35 40 50 60 70 80 90 100 110
+13.2 +10.3 +5.1 -0.1 -3.1 -4.1 -4.2 -3.4 -1.3 +1.3

33 35 40 50 60 70 80 90 100 110
+11.8 +8.3 +3.8 -0.1 -3.1 -3.8 -3.8 -3.5 -2.4 -0.4

106 108.5 110 122
+3.7 +9.5 -9.8 +11.6

45 50 60 70 80 90 100 110
+11.2 +8.2 +3.2 -0.8 -3.8 -4.2 -3.8 -2.8 -1.2 +0.2

112. 116 130.
+11.2 +12.7 +13.0

51 60 70 80 90 100 110 120
+11.2 +11.2 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

115 124 133
+9.0 +11.1 +12.

47 60 70 80 90 100 110 120
+11.2 +10.2 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

110. 114. 130.
+9.0 +10.1 +11.9

35 40 50 60 70 80 90 100 110 120
+14.2 +10.2 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

107 108.
+8.9 +9.5 97.

35 40 50 60 70 80 90 100 110 120
+14.2 +10.2 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

35 40 50 60 70 80 90 100 110 120
+14.2 +10.4 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

35 40 50 60 70 80 90 100 110 120
+14.2 +10.4 +7.8 +3.8 -0.2 -3.8 -4.2 -3.8 -2.8 -1.2

95 107.
+10.7 10.0

1303

Plotted

See also Office #50, last page.

1304

Plotted

For X Sections taken April 28/10
see next page

1305

X Sections of Dredge
taken on April 28/10
" to verify

E 618.44 = Ä 0+00 } 97° Left

Out East of Ä LINE
Surface of Water Elev: +3.8
X Secs on previous pages.

A 6

+4.2 -1.2 -2.7 -2.2 -2.5 -2.2 -0.8 +4.2
43. 50 60. 70. 80. 90. 100. 105

A 8

+4.2 -0.7 -2.2 -2.0 -2.0 -2.0 +3.8 +4.2
40. 50. 60. 70. 80. 90. 100. 101.

A 9

+4.2 -0.2 -1.2 -2.0 -2.0 -1.6 -0.1 +4.2
35. 40 50. 60. 70. 80. 90 95.

A 10

+4.2 +2.5 +1.0 -0.7 -1.6 -2.0 +0.8 +4.2
35. 40. 50. 60. 70 80. 90. 95.

A 12.

+4.2 -1.2 -2.0 -2.3 -2.5 -1.7 +4.2
31. 40. 50. 60. 70. 80 87.

1306

FED. 9D

9.5

9.970 27.788 18.618

E680

+50

681

+50

682

+50

683

+50

684

+50

685

+50°

+1.3

+0.7

+0.5

-1.0/10.5 -3.6/9.0 0.0 -0.4/9.0 -0.5/9.8

-0.3/9.6 -0.4/9.2 -0.2 -1.0/9.0 -0.9/10.4

-0.4/9.6 -0.2/9.0 +0.4 -0.6/9.0 -4.1/15.2

+0.5/9.8 +0.2/9.0 +0.4 -0.5/9.0 -6.8/19.2

-0.5/9.6 -0.5/9.0 +0.2 -0.4/9.0 -3.4/14.1

-0.4/9.6 -0.1/9.0 +0.1 -0.8/9.0 -0.9/10.0

0.0/9.0 +0.9 +1.4/10

+1.0/10.0 +1.0 +0.7/10.0

-0.1/10.1 -0.6/9.5 +0.9 +0.6/10.0

Observer

1307

686

+50

+0.3 / 10.0 +1.1 +0.9 / 10.0

0.0 / 9.0 +1.7 +1.0 / 10.0

Abandoned

Nov. 6/11
Nov. 7/11

FINAL X Sections Left of "A" LINE

Sta				
	Plotted			
4				0.5 -4.5 -6.8 -8.2 -8.4 -8.8 -9.0 -8.3 -5.8 -1.0 +1.5 +4.5 20. 30. 40. 50. 60. 70. 80. 90. 100. 110. 114. 120
5			+1.5 36	-2.7 -5.8 -6.3 -6.0 -5.5 -6.3 -6.7 -4.7 -1.0 +1.5 +11.6 40. 50. 60 70. 80 90 100. 110. 115 117 122.
6			+1.5 47.	-4.9 -6.5 -7.0 -6.6 -5.7 -4.0 -1.5 +1.5 +3.7 12.0 50. 60. 70. 80. 90. 100. 110 118. 125. 130.
7			+7.0 40.	+1.5 -4.8 -4.8 -6.5 -6.8 -6.2 -4.7 -0.9 +1.5 +5.3 +7.7 12.8 42 50 60 70. 80. 90. 100. 110. 117 128. 129. 133.
8	Dist bet. Sta. 8+10. 130' out = 131.0 " " 35' out 108.2		+4.2 40.	+1.5 -2.7 -5.7 -5.8 -6.0 -5.5 -4.3 -1.0 +1.5 +3.4 +7.4 +11.7 43. 50. 60. 70. 80. 90. 100. 110. 116. 122. 128. 130.
9.	Bisect Angle Dist bet. 9+10. 140' out = 132.5 " " 35' out 108.2	+4.2 35	+1.5 36.	-1.0 -5.7 -6.4 -6.1 -5.5 -5.7 -2.5 0.0 +4.6 +7.4 +9.9 40. 50. 60. 70. 80. 90. 100. 105 116 119 124.
10	Dist bet. 10+10 to 20. 140' out 73.6 30' out 81.5	+4.2 35.	+1.5 38	+9.5 135 0.0 -4.3 -5.5 -5.9 -6.3 -6.6 -5.8 -6.1 -4.8 -2.5 +1.5 +2.8 +6.7 40. 50. 60. 70. 80. 90. 100. 110. 120 130 139 142. 144
10+20	Bisect Angle Dist bet. 10+20+11. 40' out = 132.3 " " 30' out = 91.7	+4.2 30	+1.5 33.	-3.2 -5.1 -6.7 -6.3 -6.8 -6.1 -5.6 -4.5 -1.5 +1.5 +3.0 +5.3 +9.1 40. 50. 60. 70. 80 90 100. 110. 120. 127. 130. 136. 139.
11		+4.2 31	+1.5 40	-4.2 -5.2 -7.5 -8.5 -8.7 -8.6 -7.3 -4.9 -2.1 +1.5 +4.6 +9.2 60. 60. 70. 80. 90. 100. 110. 120. 130 137 148. 150.
12		+4.2 31	+1.5 33.	-0.5 -5.4 -5.5 -7.4 -6.0 -8.4 -7.8 -3.3 +1.5 +5.9 +7.3 +9.2 40. 50 60. 70. 80 90 100. 110 112 114. 118 119.
13		+4.2 31.	+1.5 34 -1.3 40.	-5.4 -6.1 -7.0 -7.8 -7.5 -7.0 -2.5 +1.5 +3.4 +4.4 +8.9 35 60. 70. 80. 90. 100. 110 114. 115. 118 119.

1309

FINAL X Sections Left of A LINE

Sta.				
14	+4.2 32	+1.5 40.	-4.1 50	-4.7 60 -5.8 70. -6.5 80. -6.6 90 -6.4 100. -4.7 110. -0.2 120 +1.5 122. +2.9 124. +8.3 128.
15	+4.7 33	+2.3 35	+1.2 40.	-4.0 50 -5.4 60 -6.4 70. -6.8 80. -6.8 90. -6.2 100. -4.7 110. +0.4 120. +6.0 125 -6.4 126 +8.1 127.
16	+4.2 34.	+1.8 35	+0.5 40	-5.1 50. -5.9 60. -6.5 70. -6.5 80. -6.9 90. -6.5 100. -4.7 110. +0.8 120 +5.2 124. +5.7 126. +8.1 127
17	+4.2 30.	+1.8 32	-1.1 40.	-5.5 50. -5.5 60. -5.9 70. -6.5 80. -6.5 90. -6.3 100. -5.0 110. -0.1 119. +5.0 120. +6.2 124. +8.5 127.
18	+4.2 31.	+2.1 33	+1.5 35.	+0.5 40 -4.0 50. -5.5 60. -5.7 70 -6.0 80. -6.4 90. -6.3 100. -5.0 110. -0.8 120. +1.5 122. +5.2 125. +5.3 127. +8.0 128
19.	+4.2 31.	+1.5 34.		0.0 40. -3.6 50. -6.0 60. -5.5 70. -6.2 80. -6.2 90. -6.3 100. -5.5 110. -0.8 120. +1.5 121. +7.8 126.
20	+4.2 31.	+1.5 33		-0.6 40. -5.6 50. -6.8 60. -6.8 70. -6.7 80. -6.5 90. -6.8 100 -4.8 110. -2.2 115 +1.5 119 +5.4 123. +6.8 124 +8.0 125.
21.	+4.2 30	+1.5 31.		-1.5 40. -6.5 50 -6.7 60 -6.7 70. -6.5 80. -6.8 90. -6.5 100 -4.9 110 -1.5 115 +1.5 119. 8.1 125
22	+4.2 35.	+1.5 36		-2.1 40. -6.0 50 -6.0 60. -6.0 70. -6.0 80. -6.3 90. -6.0 100. -2.2 110. +1.5 114. +6.4 119. 8.5 123.
23.	+4.2 33	+1.5 34		-3.2 40 -4.7 50. -5.8 60. -5.5 70. -5.9 80. -5.5 90. -5.6 100. -3.5 110. +1.5 120. +8.3 124.
24	+4.2 34	+1.5 37.		+0.5 40. -4.5 50. -5.2 60. -6.0 70. -6.0 80. -6.2 90. -6.0 100. -5.9 110. -1.7 120 +1.5 123 +7.4 125.
25	+4.2 35.	+1.5 41.		-1.5 50 -4.5 60. -5.5 70. -5.3 80. -5.7 90. -6.5 100. -6.0 110. -3.2 120. -0.5 125 +1.5 128. +6.8 129.

Plotted

Final X Sections Left of "A" Line

Nov 6/11

50

S/2.

26. Plotted +9.2 32.

+2.8 +1.5 -2.8 -5.0 -6.0 -7.7 -7.6 -8.0 -6.5 -1.5 +1.5 +6.8
35 43. 50 60. 70. 80 90 100. 110 120 123. 126.

27 +3.4 +1.0 -5.5 -7.1 -8.1 -8.0 -8.0 -7.8 -6.5 -2.2 +1.5 +2.7 +3.4 +5.8
35. 40 50. 60. 70. 80. 90. 100. 110. 120 124 125. 128. 129.

28 +3.9 +1.5 -3.2 -7.0 -8.7 -9.2 -9.3 -9.3 -2.7 -2.5 +1.5 +2.7 +3.0
40 45 50 60 70. 80. 90. 100. 110. 115 118. 119. 124.
+4.7
135.

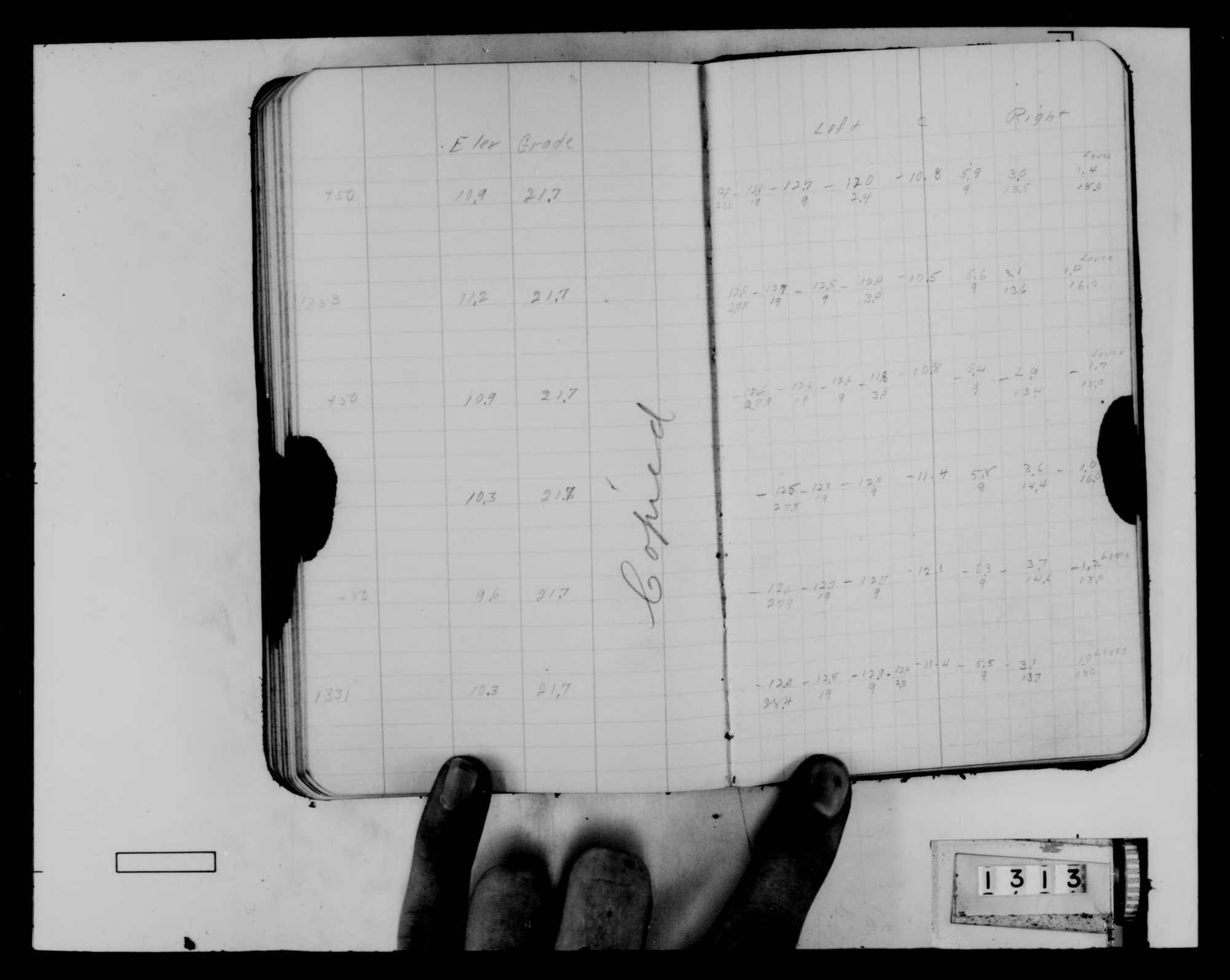
1311

Oct 10 1906

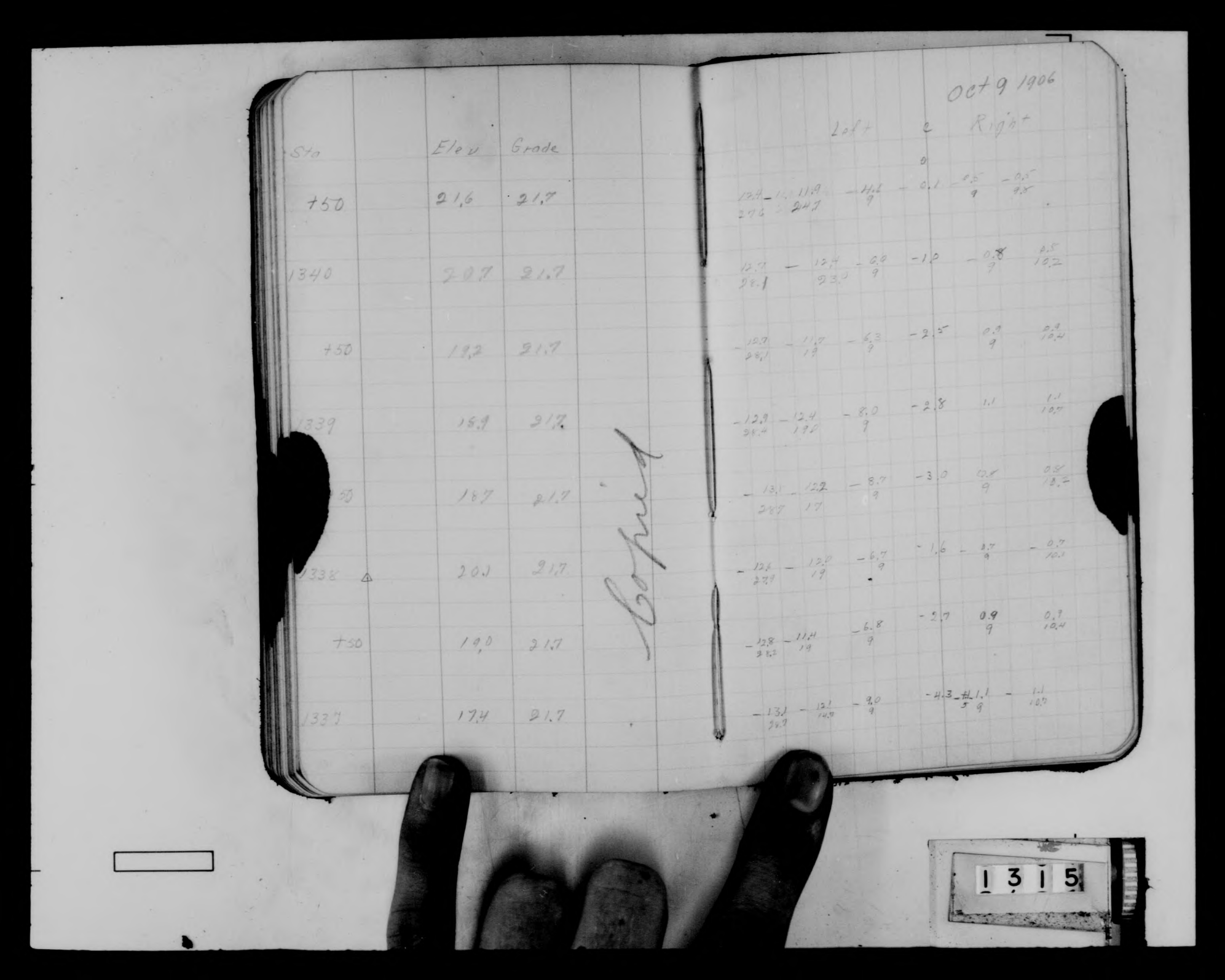
	Elev	Grade	Left	℄	Right		
+50	10.9	21.7	-12.5 -12.5 -12.9 -13.2 37.8 19 9 2.1	-10.8	-5.7 9	3.1 13.7	0.6 18.0
1350	16.0	21.7	-12.4 -12.1 -12.2 24.6 19 12.5	-9.6 9	-5.7	0.5 9	0.0 10
+50	19.4	21.7	-12.8 -12.4 -6.7 27.9 19 9		-2.3	0.9 9	
	15.7	21.7	-12.8 -12.1 -11.7 -9.4 27.9 19 14 9		-6.0	-2.7 9	-1.9 11.9 0.0 18
+0	9.2	21.7	13.2 13.1 -13.8 28.8 19 9		-12.5	-9.8 9	-6.2 -4.9 15.3 29.
1378	9.1	21.7	-12.6 -13.0 -12.9 24.9 19 9		-12.6	10.0 9	6.0 4.7 16.0 21.0

corrected

1312


Elev Grade
Left ℄ Right
750
10.9
21.7
1333
11.2
21.7
750
10.9
21.7
10.3
21.8
750
9.6
21.7
1331
10.3
21.7
Continued
1313

Elev
Grade
Left
℄
Right
750
14.9
21.7
1336
14.4
21.7
750
13.3
21.7
12.2
21.7
12.0
21.7
1334
11.4
21.7
Bottom
1314


Oct 9 1906
Sta
Elev
Grade
Left
℄
Right
+50
21.6
21.7
1340
20.7
21.7
+50
19.2
21.7
1339
18.9
21.7
50
18.7
21.7
1338
20.1
21.7
+50
19.0
21.7
1337
17.4
21.7
Scotched
1315

Sta
Elev
Grade
Rod
+2.0
1346
18.6
21.7
+50
21.7
1345
21.7
+50
21.7
13+44
21.7
+50
21.7
+0.5
+50
21.7
1342
21.7
+94.5
50
1341
Left
℄
Right
Offset
1316

Oct. 6 1906

Sta.	Elev.	Grade	Rod
+50	9.1	21.6	
1352	10.7	21.6	
+50	9.6	21.6	
1351	11.1	21.6	
+50	11.2	21.6	
1350	11.1	21.6	
+60	12.7	21.7	+2.0
	14.1	21.7	
+50	14.2	21.7	
1348	14.8	21.7	
+50	15.7	21.7	
1347			
+50			

Left — C — Right

- 13.3 — 13.3 — 12.5 — 8.9 — 4.3 — 1.8 Levee
  29.0 — 9 — 9 — 15.5 — 20.4
- 12.9 — 12.6 — 11.4 — 6.7 — 3.6 — 0.1
  28.9 — 9 — 9 — 14.4 — 19.5
- 12.7 — 12.7 — 12.0 — 7.0 — 3.6 — 0.0 Levee
  28.1 — 9 — 9 — 14.4 — 20.0
- 12.6 — 12.3 — 10.5 — 5.5 — 3.6 — 0.0 Levee
  27.8 — 9 — 9 — 14.4 — 18.0
- 12.6 — 12.4 — 10.4 — 4.8 — 2.6 — 0.0 Levee
  27.9 — 9 — 9 — 12.9 — 17.2
- 12.5 — 12.0 — 10.5 — 5.3 — 2.7 — 0.5 Levee
  27.8 — 9 — 9 — 13.0 — 16.4

Oct 8 1906

- 12.8 — 12.2 — 11.7 — 9.0 — 4.6 — 2.3 — 0.5 Levee
  28.2 — 9 — 5.3 — 9 — 12.5 — 15.0
- 12.9 — 12.6 — 7.6 — 2.8 — 1.3 — 21 Levee
  28.4 — 9 — 9 — 11.2 — 13.1
- 12.8 — 11.7 — 7.5 — 2.7 — 1.5 — 1.0 Levee
  27.9 — 9 — 9 — 11.2 — 12.6
- 12.7 — 12.0 — 11.4 — 6.9 — 1.3 — 1.0 — 0.1 Levee
  28.1 — 12.0 — 9 — 10.5 — 13.0
- 12.7 — 11.8 — 11.2 — 6.0 — 1.1 — 1.0 Levee
  28.1 — 14 — 9 — 10.5
- 12.6 — 11.8 — 8.3 — 3.8 — 0.2 Levee
  27.9 — 15 — 9 — 9 — 9.5
- 12.3 — 11.3 — 8.2 — 3.3 — 0.1 — 0.0
  27.6 — 14.4 — 9 — 5.8 — 9

Corked

1317

Sta	E	Elev	Grade	
B.M. on Sycamore Tree 65' R				1353+50 Elev
1356		16.6	21.6	
+87		17.9	21.6	
+67		9.7	21.6	
+50		10.8	21.6	Base of Sycamore
1355		10.4	21.6	
+50		9.8	21.6	
		9.9	21.6	
+50		8.8	21.6	
+26'	P.C.	8.6	21.6	
+05		14.2	21.6	
1353		14.5	21.6	
+87.5		14.1	21.6	

Left ℄ Right

1+94.8

- 7.2 / 19.8 — 5.9 / 9 — 5.0 — 2.7 / 9 — 2.1 / 12.0 — 1.2 Levee / 19
- 5.8 / 17.7 — 4.8 / 9 — 3.7 — 2.5 / 9 — 2.0 / 12.0 — .8 Levee / 1.8
- 13.5 / 28.3 — 13.1 / 9 — 11.9 — 6.1 / 9 — 3.5 / 14.3 — 0.4 Levee / 19

10.8

- 12.3 / 27.5 — 12.8 / 9 — 11.2 — 6.7 / 9 — 3.3 / 14.0 — 0.6 Levee / 19
- 12.2 / 27.2 — 12.6 / 9 — 11.8 — 6.7 / 9 — 3.3 / 14.0 — 0.8 Levee / 19
- 12.3 / 27.5 — 12.8 / 9 — 11.7 — 7.3 / 9 — 4.1 / 15.2 — 1.3 / 19.5
- 13.0 / 28.5 — 13.0 / 9 — 12.8 — 8.7 / 9 — 5.6 / 17.3 — 1.6 / 20.0 Levee
- 12.6 / 27.9 — 12.6 / 9 — 12.0 — 10.2 / 9 — 5.4 / 17.1 — 4.5 Levee / 19.0
- 7.1 / 19.7 — 7.1 / 9 — 7.4 — 7.1 / 9 — 5.3 / 14.0 — 4.6 Levee / 19.0
- 7.2 / 20 — 7.3 / 9 — 7.1 — 6.6 / 9 — 5.4 / 12.1 — 4.7 Levee / 19.5
- 7.5 / 20.3 — 7.5 / 9 — 7.5 — 6.7 / 9 — 4.9 / 15.4 — 3.7 Levee / 20

1318

B.M. 8.80
+3.31
12.11
- 3.82
T.P. 8.29
- 9.22
17.51
13.33
4.18

1319

Table IV.—Minutes in Decimals of a Degree.

1′	.0167	11′	.1833	21′	.3500	31′	.5167	41′	.6833	51′	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

Table V.—Inches in Decimals of a Foot.

1-16 .0052	3-32 .0078	1/8 .0104	3-16 .0156	1/4 .0208	5-16 .0260	3/8 .0313	1/2 .0417	5/8 .0521	3/4 .0625	7/8 .0729

1 .0833	2 .1667	3 .2500	4 .3333	5 .4167	6 .5000	7 5833	8 .6667	9 .7500	10 .8333	11 .9167

Table VI.—Radii, Ordinates and Deflections.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def for 1 Foot	Deg.	Radius	Mid. Ord.	Tan Def.	Chd. Def.	Def. for 1 Foot
0° 10′	34377.	.036	.145	.291	0.05′	7°	819.0	1.528	6.105	12.21	2.10′
20	17189.	.073	.291	.582	0.10	20′	781.8	1.600	6.395	12.79	2.20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2.25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2.30
50	6875.5	.182	.727	1.454	0.25	8	716.8	1.746	6.976	13.95	2.40
1	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2.50
10	4911.2	.255	1.018	2.036	0.35	30	674.7	1.855	7.411	14.82	2.55
20	4297 3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2.60
30	3819.8	.327	1.309	2 618	0.45	9	637.3	1.965	7.846	15.69	2.70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2.037	8.136	16 27	2.80
50	3125 4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2.85
2	2864 9	.436	1.745	3 490	0.60	40	593.4	2.110	8.426	16 85	2.90
10	2644.6	.473	1.891	3.781	0.65	10	573.7	2.183	8.716	17 43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18 30	3.15
30	2292.0	.545	2.181	4.363	0.75	11	521.7	2.402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2 511	10.02	20.04	3.45
50	2022.4	.618	2.472	4.945	0.85	12	478.3	2.629	10.45	20.91	3.60
3	1910.1	.655	2.618	5.235	0 90	30	459 3	2.730	10.89	21 77	3.75
10	1809.6	.691	2.763	5.526	0.95	13	441.7	2 839	11.32	22 64	3.90
20	1719.1	.727	2.908	5.817	1.00	30	425.4	2.949	11.75	23.51	4.05
30	1637 3	.764	3.054	6.108	1.05	14	410 3	3.058	12.18	24 37	4.20
40	1562.9	.800	3.199	6.398	1.10	30	396 2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	15	383 1	3.277	13.05	26.11	4 50
4	1432.7	.873	3.490	6.980	1.20	30	370 8	3.387	13.49	26.97	4.65
10	1375.4	.909	3 635	7.271	1.25	16	359 3	3.496	13.92	27 84	4 80
20	1322.5	.945	3.718	7.561	1.30	30	348.5	3 606	14 35	28 70	4 95
30	1273.6	.982	3.926	7.852	1.35	17	338 3	3 716	14 78	29.56	5 10
40	1228.1	1.018	4.071	8.143	1.40	18	319 6	3.935	15 64	31.29	5.40
50	1185.8	1.055	4.217	8.433	1.45	19	302 9	4.155	16 51	33.01	5 70
5	1146.3	1.091	4 362	8.724	1.50	20	287 9	4.374	17.37	34 73	6 00
10	1109.3	1.127	4.507	9.014	1.55	21	274 4	4.594	18.22	36 44	6 20
20	1074.7	1.164	4.653	9.305	1.60	22	262 0	4.814	19 08	38.16	6.60
30	1042.1	1 200	4.798	9 596	1 65	23	250 8	5 035	19.94	39 87	6 90
40	1011.5	1.237	4 943	9.886	1 70	24	240 5	5.255	20 79	41 58	7.20
50	982.6	1.273	5.088	10.18	1.75	25	231 0	5.476	21 64	43.28	7.50
6	955.4	1.309	5.234	10.47	1.80	26	222.3	5.697	22 50	44 99	7.80
10	929.6	1.346	5.379	10.76	1 85	27	214 2	5.918	23.35	46.69	8 10
20	905.1	1.382	5.524	11 05	1 90	28	206 7	6.139	24 19	48 38	8 40
30	881.9	1.418	5.669	11.34	1 95	29	199 7	6.360	25.04	50.07	8.70
40	859.9	1.455	5.814	11.63	2.00	30	193 2	6.583	25.88	51.76	9.00